

AN 118:59288 CA Full-text  
OREF 118:10623a,10626a

TI Preparation of colorless and orderless diglycerin  
IN Oka, Kenji  
PA Daicel Chemical Industries, Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04217637	A	19920807	JP 1990-417743	19901217 <--
JP 2800070	B2	19980921		
PRAI JP 1990-417743		19901217		

AB A colored distillation residue containing diglycerin (I) obtained as a byproduct in manufacturing I is purified by continuously distilling it to take out crude I as a tower-top liquid, and treating the crude I with activated charcoal followed by distillation to remove I from the top of the tower. The process removes a trace of impurities such as acrolein which gas chromatog. fails to detect, and gives cosmetic grade I which passes sensory tests for color and order. Thus, a black distillation bottoms containing glycerin 5, I 55, and triglycerin or higher polyglycerins 40% is evaporated by a thin-film flush evaporator at 5 Torr, 260°, and feeding rate 200 g/h to give 40% I of APHA value 200, which was treated with a column (diameter 5 cm, 16 cm height) of 120 g activated charcoal Diahope 008 (Mitsubishi Chemical Industries Ltd.) at feeding rate 50 g/h and 100° to give 98% I of APHA of 60-120. This was subjected to thin-film evaporation at 5 Torr, 160°, and feeding rate 200 g/h to give 90% I of 99.5% purity, and APHA of <10 with no odor by sensory test.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

AN 1992-312255 [199238] WPIDS full-text  
DNC C1992-138685 [199321]

TI Production of colourless and odourless di:glycerol of cosmetic grade - comprises distillation of residue liquid from glycerol production to obtain crude di:glycerol, treating with active carbon@ and distilling

DC D21; E17

IN OKA K

PA (DAIL-C) DAICEL CHEM IND LTD

CYC 1

PI JP 04217637 A 19920807 (199238)\* JA 4[0]

<--

JP 2800070 B2 19980921 (199843) JA 3

ADT JP 04217637 A JP 1990-417743 19901217; JP 2800070 B2 JP 1990-417743 19901217

FDT JP 2800070 B2 Previous Publ JP 04217637 A

PRAI JP 1990-417743 19901217

IPCR B01D0015-00 [I,A]; B01D0015-00 [I,C]; C07B0063-00 [I,A]; C07B0063-00 [I,C]; C07C0031-00 [I,C]; C07C0031-22 [I,A]; C07C0041-00 [I,C];

C07C0041-36 [I,A]; C07C0041-42 [I,A]; C07C0043-00 [I,C]; C07C0043-13 [I,A]

FCL B01D0015-00 K; C07B0063-00 A; C07C0031-22; C07C0041-36; C07C0041-42; C07C0043-13 A; C07C0043-13 D

FTRM 4D017; 4H006; 4H006/AA02; 4D017/AA06; 4H006/AD11; 4H006/AD17; 4D017/BA03; 4D017/BA04; 4D017/BA07; 4D017/CA03; 4D017/EA01; 4D017/EB02; 4D017/EB07; 4H006/FE11; 4H006/FG30; 4H006/GN05; 4H006/GP01; 4H006/GP10

AB JP 04217637 A UPAB: 20050505

Production of colourless and odourless diglycerol comprises treating coloured distillation residue liquid containing diglycerol sec. formed in glycerol production according to process consisting of following three steps (a), (b) and (c). (a) to distil continuously and take out crude diglycerol liquid as column top liquid (b) to treat above crude diglycerol liquid with active C. (c) to distil above C treated liquid and take out from column top.

ADVANTAGE - Diglycerol of high grade used as cosmetics material can be produced.

- In an example, residual liquid (1) left after recovering glycerol was flash-evaporated to get purified diglycerol (2) of PHA 200, which was treated with active C and subjected to thin film evap

FS CPI

MC CPI: D08-B; E10-E04C

**PRODUCTION OF COLORLESS ODORLESS DIGLYCEROL**

**Publication number:** JP4217637 (A)  
**Publication date:** 1992-08-07  
**Inventor(s):** OKA KENJI +  
**Applicant(s):** DAICEL CHEM +  
**Classification:**  
- **international:** B01D15/00; C07B63/00; C07C31/22; C07C41/36; C07C41/42;  
C07C43/13; B01D15/00; C07B63/00; C07C31/00; C07C41/00;  
C07C43/00; (IPC1-7): B01D15/00; C07B63/00; C07C31/22;  
C07C41/42; C07C43/13  
- **European:**  
**Application number:** JP19900417743 19901217  
**Priority number(s):** JP19900417743 19901217

**Also published as:**  
JP2800070 (B2)

**Abstract of JP 4217637 (A)**  
PURPOSE: To produce diglycerol usable as a cosmetic grade of high grade to pass functional tests from purified diglycerol not to pass the cosmetic grade, having such an analyzed value of acroleins by gas chromatography as an amount not to be analyzed. CONSTITUTION: A method of producing colorless odorless diglycerol wherein a colored distillation residue containing diglycerol prepared as a by-product in manufacturing glycerol is (a) continuously distilled and crude diglycerol liquid is taken out from a column top liquid, (b) the crude diglycerol liquid is treated with active carbon, then (c) distilled and taken out from the column top. Diglycerol usable as a cosmetic grade can be produced.

Data supplied from the **espacenet** database — Worldwide

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : **04-217637**  
(43)Date of publication of application : **07.08.1992**

(51)Int.Cl. C07C 43/13  
B01D 15/00  
C07B 63/00  
C07C 41/42  
// C07C 31/22

(21)Application number : **02-417743** (71)Applicant : **DAICEL CHEM IND LTD**  
(22)Date of filing : **17.12.1990** (72)Inventor : **OKA KENJI**

### (54) PRODUCTION OF COLORLESS ODORLESS DIGLYCEROL

#### (57)Abstract:

PURPOSE: To produce diglycerol usable as a cosmetic grade of high grade to pass functional tests from purified diglycerol not to pass the cosmetic grade, having such an analyzed value of acroleins by gas chromatography as an amount not to be analyzed.

CONSTITUTION: A method of producing colorless odorless diglycerol wherein a colored distillation residue containing diglycerol prepared as a by-product in manufacturing glycerol is (a) continuously distilled and crude diglycerol liquid is taken out from a column top liquid, (b) the crude diglycerol liquid is treated with active carbon, then (c) distilled and taken out from the column top. Diglycerol usable as a cosmetic grade can be produced.